

5/45

DART AEROSPACE LTD	Work Order:	24640
Description: Blade Fitting RH	Part Number:	D2742-2
Dwg: D2742 Rev. B1; DSK-050 Rev. A; D6103 Rev. A	Qty:	1025
Page 1 of 1		

Step	Location	Procedure	By	Date	Qty
1	DC	Issue Traveller Dwg not required	DA	05.10.21	10
2	PG	Issue P/O: <u>2008815</u> Material: 7075-T6/T651 (QQ-A-200/11 or QQ-A-225/9) 3.250" OD x 12.500" Long (+0.100/-0.030) per P/N D6103-001 Certificate of Conformity is required	AS	05-10-21	10
3	RG	Receive and Inspect for transit damage Ensure Certificate of Conformity is attached	CL	05/10/31	10
4	QC6	Inspect dimensions as per Dwg D6103	a	06-01-09	10
5	MS <u>RG</u>	Machine as per Folio FA099 (Note: Lathe work only!) Issue P/O <u>378</u> to turn only per dwg	n	06-01-12	10
6	QC6 <u>RG</u>	Inspect parts as they come off the CNC machine Receive + Inspect	CL	06/01/30	10
7	QC6	Second inspection inspect QC6		06-02-01	10
8	MV	Machine as per Folio FA099 (Note: HAAS work!)	En 06/02/04 MB	06/02/01	25
9	QC2	Inspect parts as they come off the CNC machine	Ep 06/02/04 MB	06/02/01	25
10	QC8	Second inspection	J.L.	06-02-04	25
11	FP	Chemical Conversion Coat as per QSI 005 4.1	M	06 02 08	25
12	FP	Powder Coat White (REF 4.3.5.1) as per QSI 005 4.3	am 06/02/08	06 02 10	25
13	QC3	Inspect Powder Coat	M	06 02 10	25
14	FP	Install ALS4-1032-225 Insert as per Dwg D2742 Qty Part Number Description Batch 4 ALS4-1032-225 Insert M14576 or AKS4-1032-225 or ALS7-1032-225 or AKS7-1032-225	a.m	06-02-14	25
15	QC5	Inspect part 100% for completeness on the W/O	M	06 02 14	25
16	FP	Identify and Stock	M	06 02 14	25
17	AC	Cost / part	Sur	06-02-15	25
18	DC	Close W/O Inspect Level 21	19	06/02/15	25

Rev	Date	Change	Revised By	Approved
A	98.09.09	New Issue	DS/CP	
B	98.11.02	Blank size, inspection level added	KS	
C	99.02.02	Changed Procedure, Insert	DM	
D	00.11.01	Removed P/O for Powder Coat & for turning	EC	
E	00.11.17	Added picking DSK-050	EC	
F	02.05.07	Added turning sequence(remove DSK 050)	NG	
G	02.09.20	Re-format; Added P/O	KJ	
H	04.03.09	Added Steps 3 & 4	KJ/RF	

RELEASED
04.04.01

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			
06/02/02	8	Dimension of 0.508" hole is oversize 0.514" and Dimension of 0.500" holes is oversize 0.510"	UP 06/02/02 per DSI/ur2	changed DRILL and changed holder of the Reamer.	ms 06/02/02	2 06-02-02	UP 06.02.02 per QX1042	2 06-02-02
06/02/02	8	Dimension 0.590" is out of tolerance actual Dimension 0.577"	G 06/02/02	change PROGRAM X value off by 0.015" add dimension 0.590" to F.A.I	J.S.G. 06-02-02	2 06-02-02	2 06-02-02	2 06-02-02

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: ☒ Date: 06/02/15.

NOTE: Date & initial all entries

QA: N/C Closed: _____ Date: _____

DART AEROSPACE LTD	Work Order: 24640
Description: Blade Fitting	Part Number: D2742-2
Inspection Dwg: D2742 Rev: B1; DSK050 Rev: A	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

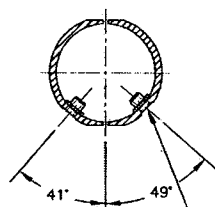
Inspection Sheet	Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
LATHE	8.000	+0.030/-0.000					
	9.250	+/-0.010					
	Ø3.240	+0.005/-0.000					
	Ø3.125	+0.005/-0.000					
	Ø2.780	+0.005/-0.000					
	Ø2.450	+0.005/-0.000					
	0.125 x 45°	+/-0.010					
	0.125	+/-0.010					
	12.50	+0.030/-0.000					
HAAS	0.100 x 0.135	N/A	N/A				
	0.500	+0.005/-0.000	.504	✓			
	1.500	+/-0.005	1.500	✓			
	11.46	+/-0.030	11.469	✓			
	1.180	+/-0.005	1.179	✓			
	3.150	+/-0.005	3.150	✓			
	3.500	+/-0.005	3.498	✓			
	Ø0.484	+0.005/-0.000	Ø.486	✓			
	Ø0.508	+0.005/-0.000	.511	✓			
	1.000	+/-0.010	1.005	✓			
	0.926	+/-0.010	.930	✓			
	0.500	+/-0.010	.508	✓			
	1.230	+/-0.010	1.226	✓			
	0.125	+/-0.010	.125	✓			
	2.620	+/-0.010	2.624	✓			
	0.297	+0.005/-0.000	.298	✓			
	Ø0.430 x 0.045	+/-0.010	Ø.432x.043	✓			

done at Metec

Measured by: MB	Audited by: J.L	Prototype Approval: N/A
Date: 06/02/01	Date: 06.02.01	Date: N/A

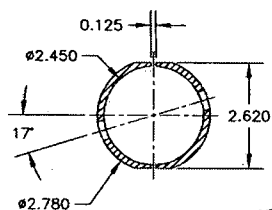
Rev	Date	Change	Revised by	Approved
A	03.12.12	New Issue	KJ/RF	

SECTION B-B



Ø0.297
C'BORE Ø0.430 x 0.045"
INSTALL ALS4-1032-225 (OR AKS4-1032-225
OR ALS7-1032-225 OR AKS7-1032-225)
INSERTS AFTER FINISH
(4 PLACES)

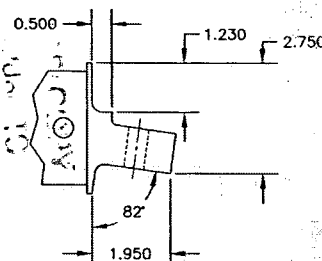
SECTION A-A



EFFECTIVE	DEOS
9147	

WORK ORDER
NO. 24640

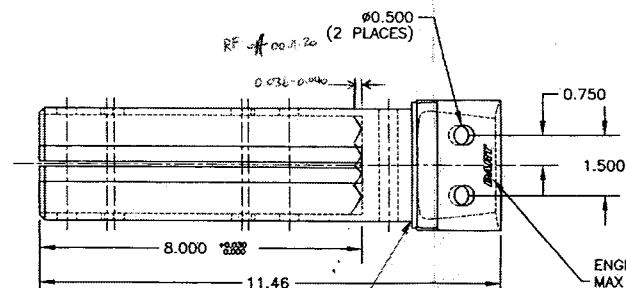
IF COPY
IF DOCUMENT
THOUT NOTICE



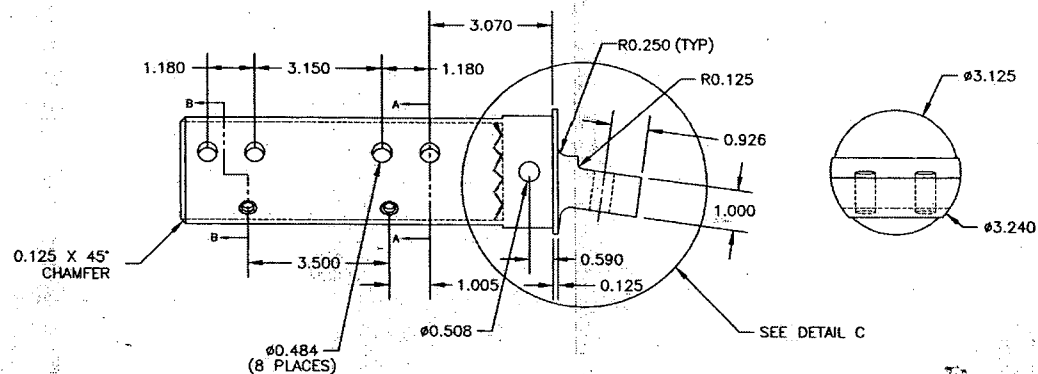
DETAIL C

GENERAL NOTES

MATERIAL: 7075-T651 (QQ-A-200/11 OR QQ-A-225/9)
FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1
POWDER COAT WHITE (REF 4.3.5.1) PER DART QSI 005 4.3
BREAK UNMARKED SHARP EDGES 0.010 TO 0.020
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED



ENGRAVE DART LOGO TO
MAX DEPTH OF 0.015
WITH MIN RAD 0.250



D2742-1 SHOWN (D2742-2 OPPOSITE)

RELEASED
98.11.03 DS

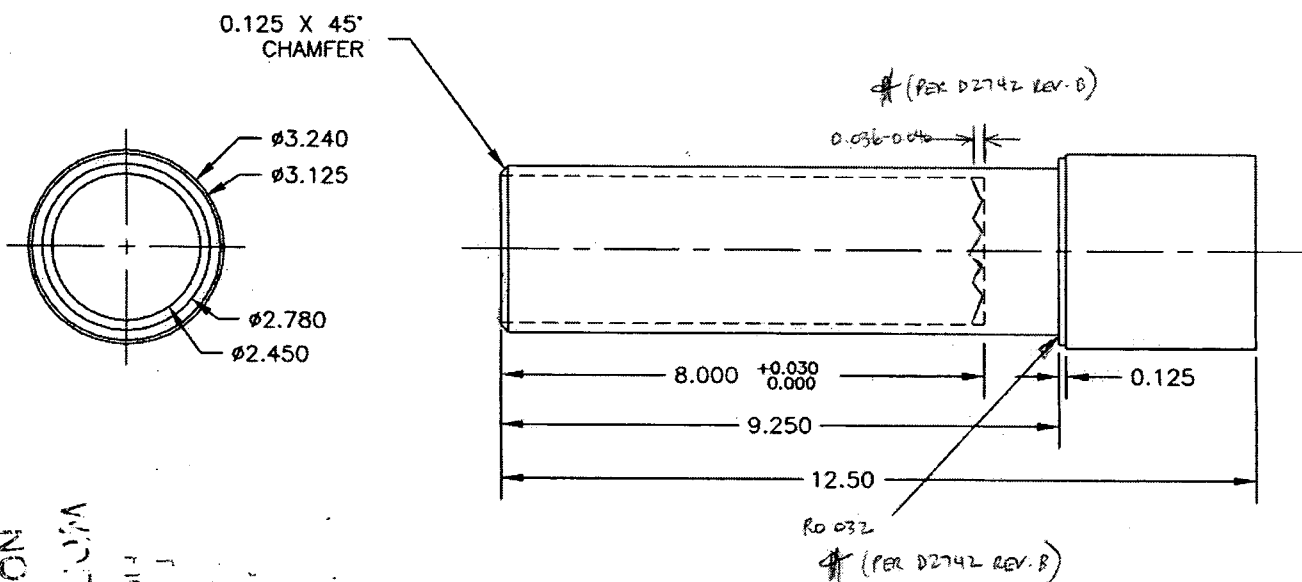


B	98.09.01	ADD INSERTS, AS MANUFACTURED
A	98.04.16	NEW ISSUE
DESIGN	DRAWN BY	DART DART AEROSPACE USA, INC. FARFIELD INTERNATIONAL AIRPORT, WA.
CHECKED	APPROVED	DRAWING NO. D2742
DATE	TITLE	BLADE FITTING
98.09.01		REV. B SHEET 1 OF 1 SCALE 1:3

DART

DESIGN	05	DRAWN BY	KE	DART AEROSPACE LTD
CHECKED	RF	APPROVED	SH	HAWKESBURY, ONTARIO, CANADA
DATE	98.12.07	DRAWING NO.	DSK-050	REV. A
		TITLE	BLADE FITTING TURNING DETAILS	SHEET 1 OF 1
				SCALE
A	98.12.07	NEW ISSUE		1:3

RELEASED
98.02.03 DS



GENERAL NOTES

MATERIAL: 7075-T651 (QQ-A-200/11 OR QQ-A-225/9)
FINISH: NONE
BREAK UNMARKED SHARP EDGES 0.010 TO 0.020
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
ALL DIMENSIONS ARE IN INCHES

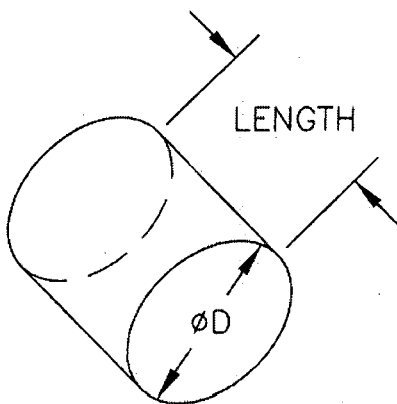
WORK ORDER
NO. 24640



DESIGN <i>CP</i>	DRAWN BY <i>CP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D6103	Rev. A SHEET 1 OF 1
DATE 01.04.10		TITLE ROUND BILLET, ALUMINUM	SCALE NTS
A	01.04.10	NEW ISSUE	

SPECIFICATION CONTROL DRAWING

RELEASED
01 04 23 *[Signature]*



PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, DIAMETER x LENGTH (+0.030/-0.000) AS SHOWN.

TOLERANCE ON ALL DIMENSIONS IS +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES.

Part No.	Alloy	D (Diameter)	Length
D6103-001	7075-T6/T651 (QQ-A-200/11 OR QQ-A-225/9)	Ø3.250	12.50

COPY
DOCUMENT
NOTICE

ORDER
NO. 24640

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Job Costing Report

Dart Aerospace Ltd.
Hawkesbury

Oct 20, 2005
04:09 pm

Work Order No : 0024640
Project Name : D2742-2
Project For : WK545
Work Order Type : Main
Main WO Number :
House Part Number : D2742-2
Description : Blade Fitting, RH
Manufactured : Yes
Amount Req'd : 10
Amount Done : 0
Start Date : 10-20-05
Est Finish Date : 11-11-05
Act Finish Date :
Drawings Req'd : No
Ok for Approval :
Approval Rec'd :

Department Code:
Burden Flags : NNNNNNNN
WO Status : Open
Invoice State : Not Invoiced
Invoice Date :
Invoice Number :
Invoice Amount : 0.00

Order Entry No :
OE Value : 0.00

Est Mark Up : 0.000%
Actual Mark Up : 0.000%

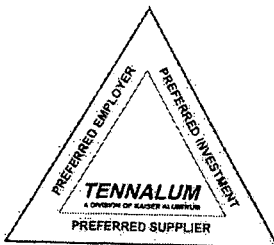
\$0 Posted to Finished Goods

	Estimated	Actual	Var. %	Posted	To Post
Material Cost :	0.00	0.00	0.00	0.00	0.00
Engineering Hours :	0.00	0.00	0.00		
Engineering Cost :	0.00	0.00	0.00	0.00	0.00
Production Hours :	0.00	0.00	0.00		
Production Cost :	0.00	0.00	0.00	0.00	0.00
Packaging Hours :	0.00	0.00	0.00		
Packaging Cost :	0.00	0.00	0.00	0.00	0.00
OverHead Hours :	0.00	0.00	0.00		
OverHead Cost :	0.00	0.00	0.00	0.00	0.00
CNC Hours :	0.00	0.00	0.00		
CNC :	0.00	0.00	0.00	0.00	0.00
Misc. Hours :	0.00	0.00	0.00		
Misc. :	0.00	0.00	0.00	0.00	0.00
Burden :	0.00	0.00	0.00		
Total Cost :	0.00	0.00	0.00		
Mark up :	0.000	0.000			
Selling Cost :	0.00	0.00			

	Estimated	Actual
Labour Hrs/Amount Done :	0.00	0.00
Profits/(Loss) :	0.00	0.00

KAISER ALUMINUM FABRICATED PRODUCTS

Tennalum
PO Box 669
Jackson, TN 38302
731-423-2811



CERTIFIED TEST REPORT
http://KaiserEngProd.com

CUSTOMER PO NUMBER: CB1812 <i>Kle 2-2-05</i>		CUSTOMER PART NUMBER: 024363		PRODUCT DESCRIPTION: Cold Finished Round	
KAISER ORDER NUMBER: 597747	LINE ITEM: 1	SHIP DATE: 02/01/2005	ALLOY: 7075	TEMPER: T651	
WEIGHT SHIPPED: 485 lbs.	QUANTITY: 4 pcs.	B/L NUMBER: 22694	DIAM/DAF/THKNS: 3.250 in.	WIDTH: 0.000 in.	LENGTH: 144.0 in.
SHIP TO: Copper & Brass Sales Inc Suite 702 5207 Linbar Drive Nashville, TN 37211 USA			SOLD TO: Copper & Brass Sales Inc Attn: Accounts Payable P. O. Box 5116 Southfield, MI 48086-5116 USA		

Test Code: 1000

Actual Physical Properties

Lot Number	LONG. UTS ksi	LONG. YTS ksi	LONG. ELONG. %
20062743	81.0	73.7	14.0

Chemical Composition, WT. % (Aluminum Remainder)

	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	OTHERS EACH	OTHERS TOTAL
Max	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.15
Min			1.2		2.1	0.18	5.1			

Specifications

Standard: ISO 9001, ASTM B211-03, AMS 4123G, AMS-QQ-A-225/9

CUSTOMER: _____
CUSTOMER PO #: _____
WORK ORDER #: _____
PART NO. _____
Q.C. _____ DATE: _____

Miscellaneous Notes

This material was melted and manufactured in the USA. Mercury is not a normal contaminant in aluminum alloys. Neither mercury nor any of its compounds were utilized by Kaiser Aluminum in the manufacture of this material. This material meets the requirements of (cold finished) T6 temper, AMS 4122J and QQ-A-225/9E (CANCELLED).

CERTIFICATION

Kaiser Aluminum & Chemical Corporation ("Kaiser") hereby certifies that the metal shipped under this order has been inspected and tested and found in conformance with the applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

John Rennekamp, Quality Manager

John Rennekamp

Plant Serial: 47252

Kaiser Order Number: 597747

Line Item: 1

Chris Provencal

From: David Shepherd [davids@dartaero.com]
Sent: February 2, 2006 11:03 AM
To: Chris Provencal
Subject: Re: D2742-2 NCR

These are acceptable deviations.

David

----- Original Message -----

From: "Chris Provencal" <cprovencal@dartaero.com>
To: <davids@dartaero.com>
Sent: Thursday, February 02, 2006 8:28 AM
Subject: D2742-2 NCR

> Dave, for a D2742-2 blade fitting:
>
> The holes that the stinger connect to should be 0.500" OD, they are 0.511"
> (0.006" over tol)
>
> The aftmost skidtube hole should be 0.508" OD, it is 0.514" (0.001" over
> tol)
>
> Sincerely,
> Chris Provencal
> DART Aerospace Ltd.
> Email..cprovencal@dartaero.com
> Phone...613-632-3336
> Fax.....613-632-4443
>
>